10. Koblenzer
eLearning-Tage
In Touch with Learning

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CELSTEC
celstec.org

World Map > Netherlands > Limburg > Welten

Open Universiteit Nederland, Bologna and Chiba building

Open Universiteit NL:
- 20.000 Students
- 60 Mio Budget
- 15 Study Centers

CELSTEC
- 120 fte, 7 Mio budget

Centre for Learning Sciences and Technologies

Open Universiteit
celstec.org

CELSTEC Aktivitäten

- Forschungsprogramme zu den Themen
  - Technology-Enhanced Learning (TEL)
  - Learning Sciences
- Jedes FP hat 3 Aufgaben
  - Forschung
  - Innovation
  - Lösungen für den Bildungsmarkt
- Institute for Education & Training
  - MSc Learning Sciences
  - Kommerzielles Training
- Temporäre strategische Programme
  - Dienste für das lebenslange Lernen
  - Open Educational Resources

EU Projekte
Technology Enhanced Learning (TEL)

TEN Competence

STELLARNET

cooper

Cooperation

LTfLL

Learner Support

Learning Environments

TEL

GRAPPLE

GALA
Games and Learning Alliance
Network of Excellence for Serious Games

Content

Creativity

MACE
Metadata for Architectural Contents in Europe

iCOPER
Adopting Standards for European Educational Content

idSpace

OpenScout

EU Projekte
Lernen in verschiedenen Professionen

EMuRgency

SALOMO – Situational Awareness for LOgistic Multimodal Operations in container supply chains and networks

Health

Logistics

Handover

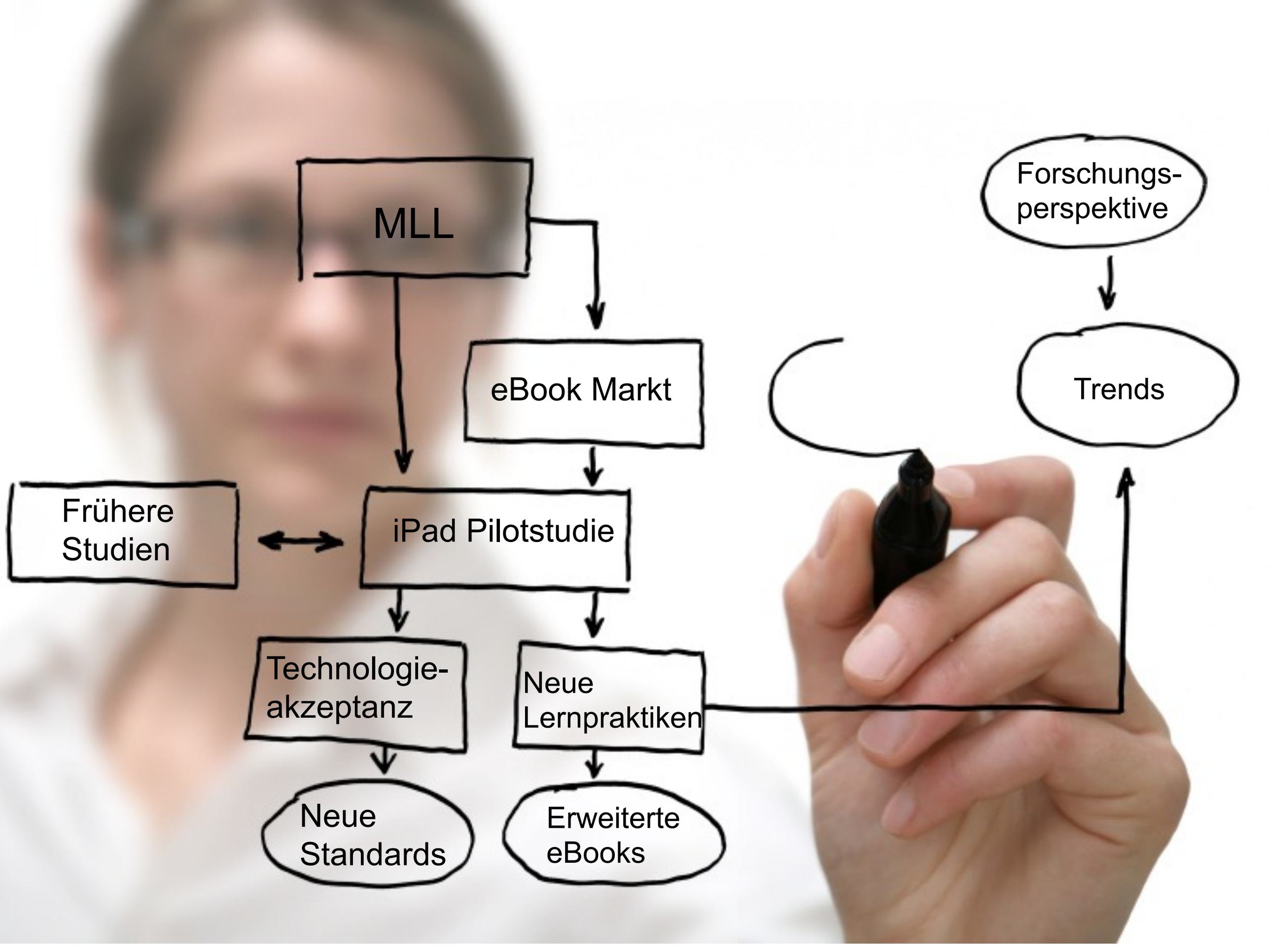
Water management

Skills Labs
e-practica voor het leren van complexe vaardigheden

Teacher education

Share.TEC
teacher education resources

Tellnet - Teachers' Lifelong Learning Network
How can social learning networks support teachers' digital competences?
www.tellnet.eun.org


MLL
eBook Markt
Frühere Studien
iPad Pilotstudie
Technologie-akzeptanz
Neue Lernpraktiken
Neue Standards
Erweiterte eBooks
Forschungs-perspektive
Trends

	Total		Male		Female	
	2004	2009	2004	2009	2004	2009
EU-27	9.3	9.3	8.7	8.5	10.0	10.2
Euro area (EA-16)	7.3	8.1	7.2	7.7	7.5	8.5
Belgium	8.6	6.8	8.7	6.4	8.5	7.2
Bulgaria	1.3	1.4	1.2	1.3	1.3	1.5
Czech Republic	5.8	6.8	5.5	6.5	6.0	7.0
Denmark	25.6	31.6	22.1	25.6	29.1	37.6
Germany	7.4	7.8	7.8	7.8	7.0	7.7
Estonia	6.4	10.5	5.1	7.6	7.5	13.2
Ireland	6.1	6.3	5.1	5.7	7.1	7.0
Greece	1.8	3.3	1.8	3.2	1.8	3.3
Spain (2)	4.7	10.4	4.2	9.6	5.1	11.3
France	7.1	6.0	7.0	5.6	7.1	6.4
Italy	6.3	6.0	5.9	5.6	6.7	6.4
Cyprus (2)	9.3	7.8	9.0	7.8	9.6	7.8
Latvia	8.4	5.3	5.7	3.6	10.8	6.9
Lithuania	5.9	4.5	4.2	3.6	7.4	5.4
Luxembourg (2)	9.8	13.4	9.5	13.4	10.1	13.5
Hungary	4.0	2.7	3.4	2.5	4.6	3.0
Malta	4.3	5.8	4.8	5.6	3.8	6.0
Netherlands	16.4	17.0	16.1	16.5	16.8	17.5
Austria	11.6	13.8	10.9	12.8	12.2	14.7
Poland	5.0	4.7	4.3	4.3	5.7	5.1
Portugal	4.3	6.5	4.1	6.2	4.4	6.8
Romania	1.4	1.5	1.3	1.3	1.4	1.6
Slovenia	16.2	14.6	14.8	12.9	17.6	16.4
Slovakia	4.3	2.8	3.8	2.2	4.8	3.3
Finland	22.8	22.1	19.2	18.5	26.4	25.9
Sweden (2)	:	22.2	:	16.1	:	28.5
United Kingdom (2)	29.0	20.1	24.9	16.8	33.1	23.3
Iceland	24.2	25.1	19.6	20.4	28.9	30.0
Norway	17.4	18.1	16.3	16.8	18.6	19.5
Switzerland	28.6	24.0	29.7	22.8	27.4	25.2
Croatia (3)	1.9	2.3	1.8	2.4	2.0	2.1
FYR of Macedonia	:	3.3	:	3.2	:	3.4
Turkey	1.1	2.3	1.5	2.4	0.8	2.1

(1) Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/lfsi_edu_a_esms.htm).
(2) Break in series, 2007.
(3) 2009 male and female rates, unreliable or uncertain data.

European Commission
eurostat Your key to European statistics

Eurostat, Adult Education Survey, 2009

	Health or age	None within reachable distance	No time due to family	Did not have the pre-requisites	Too expensive, could not afford	Did not like idea of going back to school	Lack of employer support	Conflict with work schedule	Other/ no resp.
EU	14.8	20.8	40.2	15.6	31.2	14.9	18.4	38.7	26.8
Belgium	21.8	13.1	38.4	9.5	17.9	4.8	14.7	33.1	10.6
Bulgaria	11.5	29.7	28.8	16.3	56.7	6.2	11.6	24.1	7.7
Czech Republic	11.9	16.1	38.5	7.8	19.7	2.1	22.5	36.8	3.6
Denmark	:	:	:	:	:	:	:	:	:
Germany	12.1	24.9	33.9	24.1	43.7	11.1	32.8	36.9	13.3
Estonia	18.2	34.5	38.8	2.9	53.1	8.5	8.8	32.6	42.6
Ireland	:	:	:	:	:	:	:	:	:
Greece	10.5	19.1	48.3	7.5	33.4	9.7	9.7	43.0	19.0
Spain	5.8	8.5	41.2	7.5	13.4	2.7	4.7	32.5	27.7
France	:	:	:	:	:	:	:	:	:
Italy	19.7	16.8	49.5	19.2	26.2	16.6	15.2	44.1	12.4
Cyprus	9.3	12.0	67.9	5.2	16.2	4.8	5.2	42.1	12.3
Latvia	11.9	24.1	40.1	11.2	90.8	11.9	29.7	36.8	11.4
Lithuania	13.2	19.6	34.3	3.2	45.6	4.9	16.2	48.4	13.5
Luxembourg	:	:	:	:	:	:	:	:	:
Hungary	12.5	32.4	37.5	13.9	42.3	18.9	39.9	53.2	15.0
Malta	:	:	:	:	:	:	:	:	:
Netherlands	23.8	13.0	29.9	4.2	25.1	13.5	20.1	17.6	22.8
Austria	6.3	22.4	42.3	7.1	34.6	2.8	16.1	39.5	15.8
Poland	9.1	31.0	29.2	9.2	61.3	17.5	20.4	31.4	11.5
Portugal	6.8	34.2	34.5	11.8	22.7	4.1	20.0	26.5	18.9
Romania	:	:	:	:	:	:	:	:	:
Slovenia	*15.5*	*30.2*	*37.7*	*7.6*	48.5	*7.3*	*22.3*	55.5	8.8
Slovakia	10.8	30.9	35.5	56.5	39.3	3.0	25.2	40.7	3.7
Finland	17.1	25.6	31.0	11.6	22.2	7.2	24.0	43.7	21.4
Sweden	23.7	22.0	23.0	5.8	32.5	6.9	19.1	32.4	20.5
United Kingdom	17.0	25.9	42.5	20.8	33.8	24.1	22.6	43.9	56.5
Norway	19.5	13.6	25.8	4.3	17.6	9.2	21.1	32.2	15.7
Croatia	11.0	26.7	48.7	14.9	53.8	4.2	17.1	28.8	8.6

(1) Multiple answers allowed; Denmark, Ireland, France, Luxembourg, Malta and Romania are not included in the EU average; refer to the Internet metadata file

European Commission
eurostat Your key to European statistics

Eurostat, Adult Education Survey, 2009

Nahtlose Lernunterstützung

- (MSL1) Verbindung von formalem und non-formalem Lernen
- (MSL2) Verbindung von individuellen und sozialen Lernszenarien;
- (MSL3) Lernen unabhänging von Zeit;
- (MSL4) Lernen unabhänging von Ort;
- (MSL5) Allgegenwärtiger Zugriff auf Informationen;
- (MSL6) Verbindung der digitalen und realen Welt;
- (MSL7) Verbindung von verschiedenen Zugangsgeräten;

Looi et al., 2010

Nahtlose Lernunterstützung

- (MSL8) Nahtlose Unterstützung verschiedener Lernaktivitäten (z.B. Datensammlung, Datenanalyse und Präsentation).
- (MSL9) Wissenssynthese ermöglichen
- (MSL10) Verbindung verschiedener pädagogischer Modelle

Looi et al., 2010

Hype & Realität

eBooks als Zukunftstrend in den nächsten 2 – 3 Jahren

Features	Smart-phone	eReader	Tablet	Laptop/ Notebook
Battery life	◑	●	◑	◑
Ability to display Pictures	●	◔	●	●
Ability to display Videos	◕	○	●	●
Display size	◔	●	◕	●
Readability	◔	●	◔	○
Colors	●	○	●	●
Variety of formats	◕	◕	◕	●
Weight	●	●	◑	◔
Mobile connectivity	◕	○	◕	◑
Disk space	◑	◔	◑	●
Additional contents	◕	◔	◕	●
Suitable for consumer books	◔	●	◑	○
Suitable for professional books	◔	◔	◕	●

● Excellent suitability ○ No suitability

Fig. 2 Comparison of the suitability of different reading devices for eBooks

PWC (2010): Turning the page. The future of ebooks.

Marktstudie

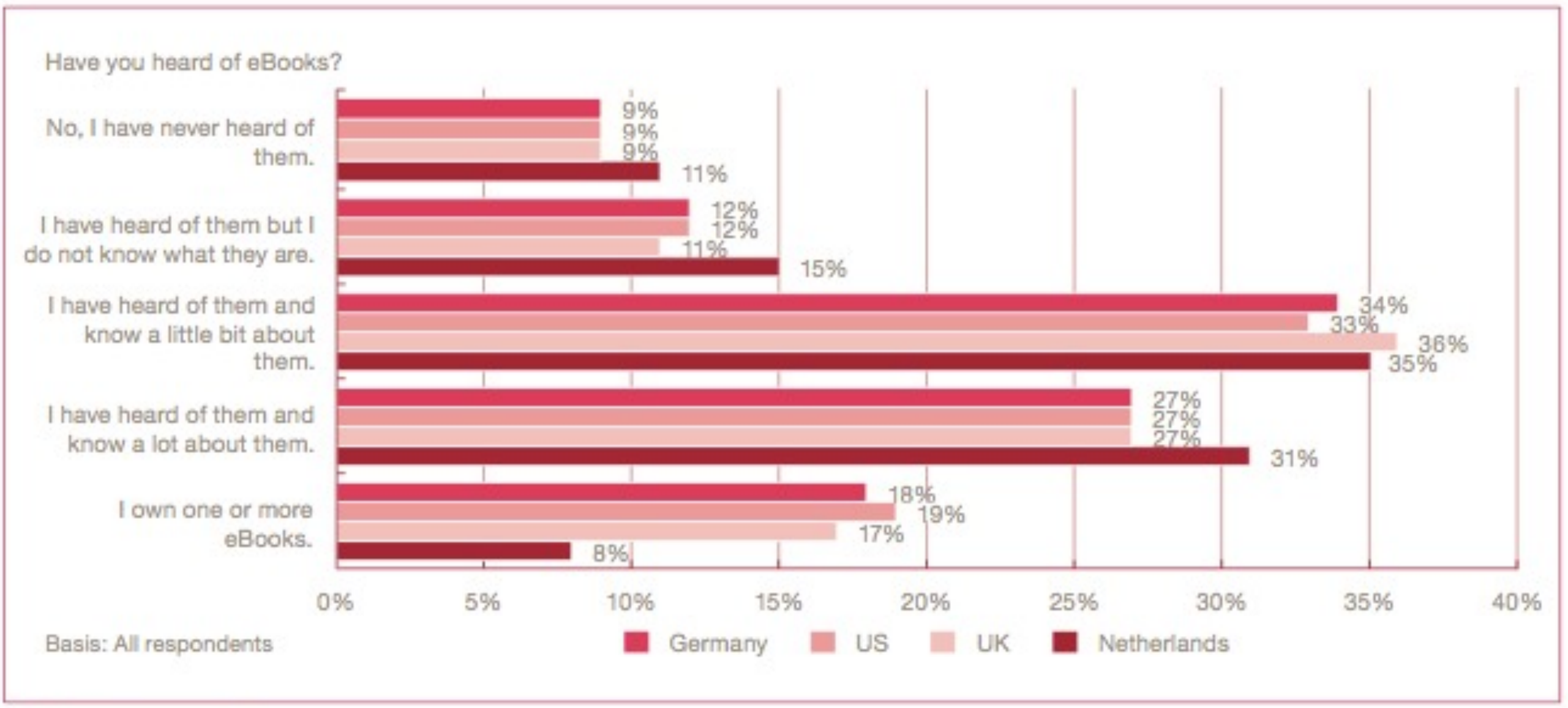


Fig. 6 Popularity of eBooks

PWC (2010): Turning the page. The future of ebooks.

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Marktstudie

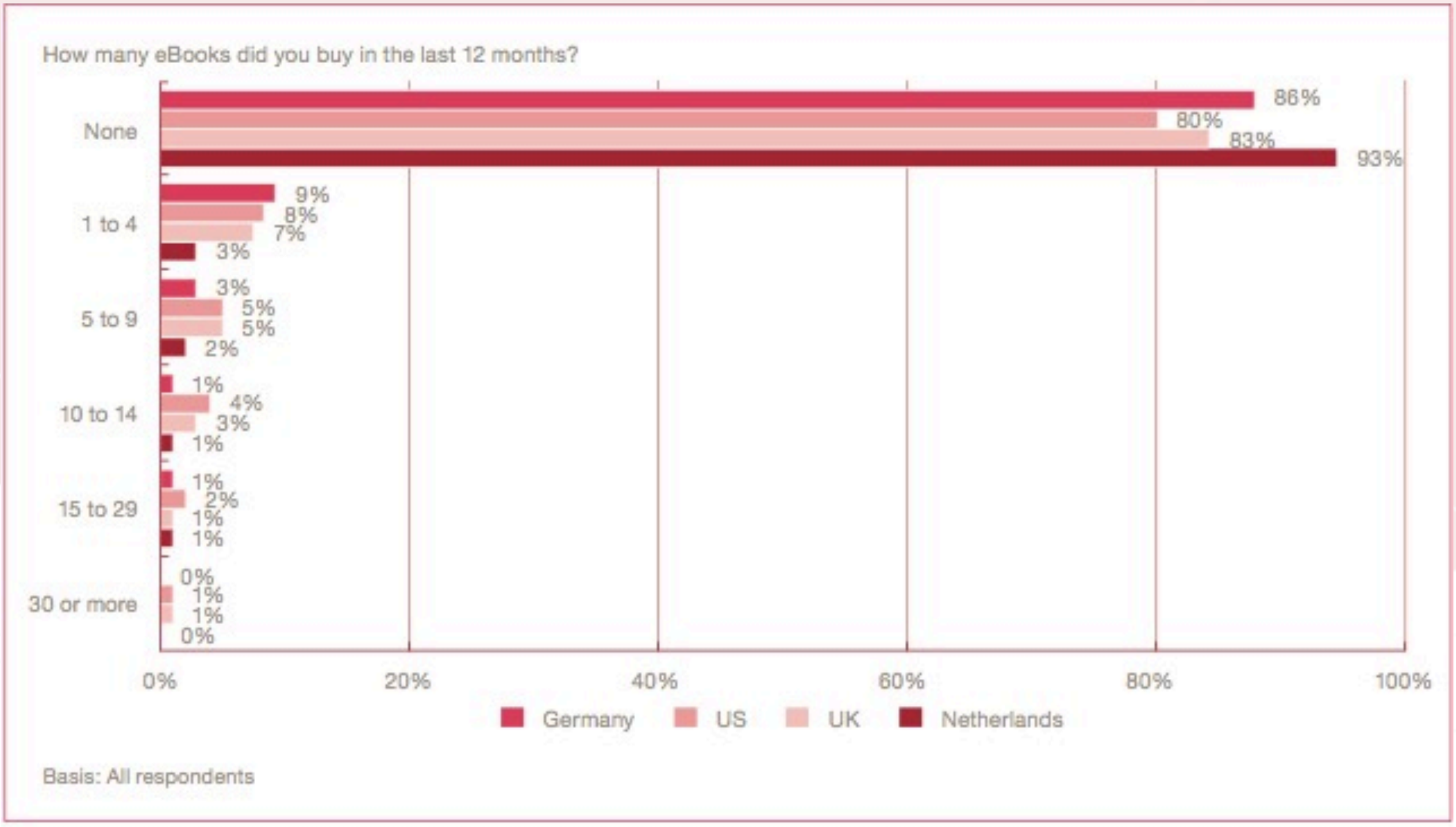

Fig. 8 Number of bought eBooks in the last twelve months

PWC (2010): Turning the page. The future of ebooks.

A milestone for e-books: Amazon sells more Kindle books than print

State of the art

- Vor-tablet-Ära/Tablet-Ära
- 3 Typen von Studien:
  - Medienvergleichsstudien
  - Lesefähigkeit & Literalitätsstudien
  - Veränderung von Lernpraktiken

Medienvergleichsstudien

- Woody, Daniel & Baker (2010): Preference for traditional books, no effects on learning results
- Rockinson-Szapkiw, Holder, & Dunn (2011): Higher motivation to study instructional material for eBook-group

Table 2
Means, standard deviations, and univariate statistics for participants' self-reported use of special features and satisfaction with e-books and print books.

Measure	E-book	Print books	Tukey significance
How often they used the activities or online resources	4.76 (2.14)	4.44 (2.42)	$p > .05$
How often read section summaries	5.61 (2.33)	6.13 (2.07)	$p > .05$
How often answer study questions	4.76 (2.37)	5.26 (2.07)	$p > .05$
How often read captions and charts	4.93 (2.07)	5.94 (1.92)	$p < .05$
Satisfaction	5.33 (2.07)	6.83 (1.53)	$p < .01$

Note. Participants used a 9-point scale (1 = *never*, 9 = *always*) to respond to questions.

Lesefähigkeit/Literalität

- Korat (2010) shows significant effects of eBooks for word reading and story comprehension (kindergarten level)
- Jones & Brown (2011) show no significant effects of eBooks for comprehension tests with 3rd graders

Veränderte Lernpraktiken

Nie et al. (2011) study: 28 students of masters's programme occupational psychology & education

Table 7. Summary of key advantages of e-book readers in curriculum delivery.

Finding	Key points
Enhanced flexibility in curriculum delivery to meet mobility demands	Students used their e-book readers in different places (at home, in the office, in public places and on the move) to access all essential course readings.
Better use of time	Students found it easy to take the e-book reader anywhere and read whenever an opportunity arises. They filled in the gaps during the day for study purposes.
New study strategies	Some students changed their strategies for reading, keeping notes and approaching assignments. Some students opted for the e-book reader for reading while on the move, the iPhone™ for a quick check, and printed material for note-taking and highlighting.
Cost savings for students	As a direct result of the availability of the e-book reader, some students were less dependent on printed material and more selective when printing materials out.

iPad Pilotstudie

- Longitudinalstudie/kleines Sample (n=12)
- September 2011 – August 2012
- iPad 2 WiFi
- 4 Kurse (7 Module)
- Mix von Lehrbüchern & Übungsbüchern
- Formatmix ePub & PDFs
- Kooperation mit Herausgebern (Kluwer, Boom, SDU)

Annoteer
strafrecht/strafprocesrecht
MATERIEEL
STRAFRECHT
De Haitha
Annoteer
burgerlijk recht
AB
Rechtshandeling
en Overeenkomst
Verbintenissenrecht
algemeen
Schakelzone

iPad Pilotstudie

Sample Characteristics	Results
Gender	Male 50% Female 50%
Study context	75% Part time 25% Full time
Age	Mean 32.25
Experience	85% Have experiences with using an app store 100% use a portable computer at least weekly 50% have experiences with tablet computers
Voluntariness	85% intrinsically motivated 15% extrinsically motivated

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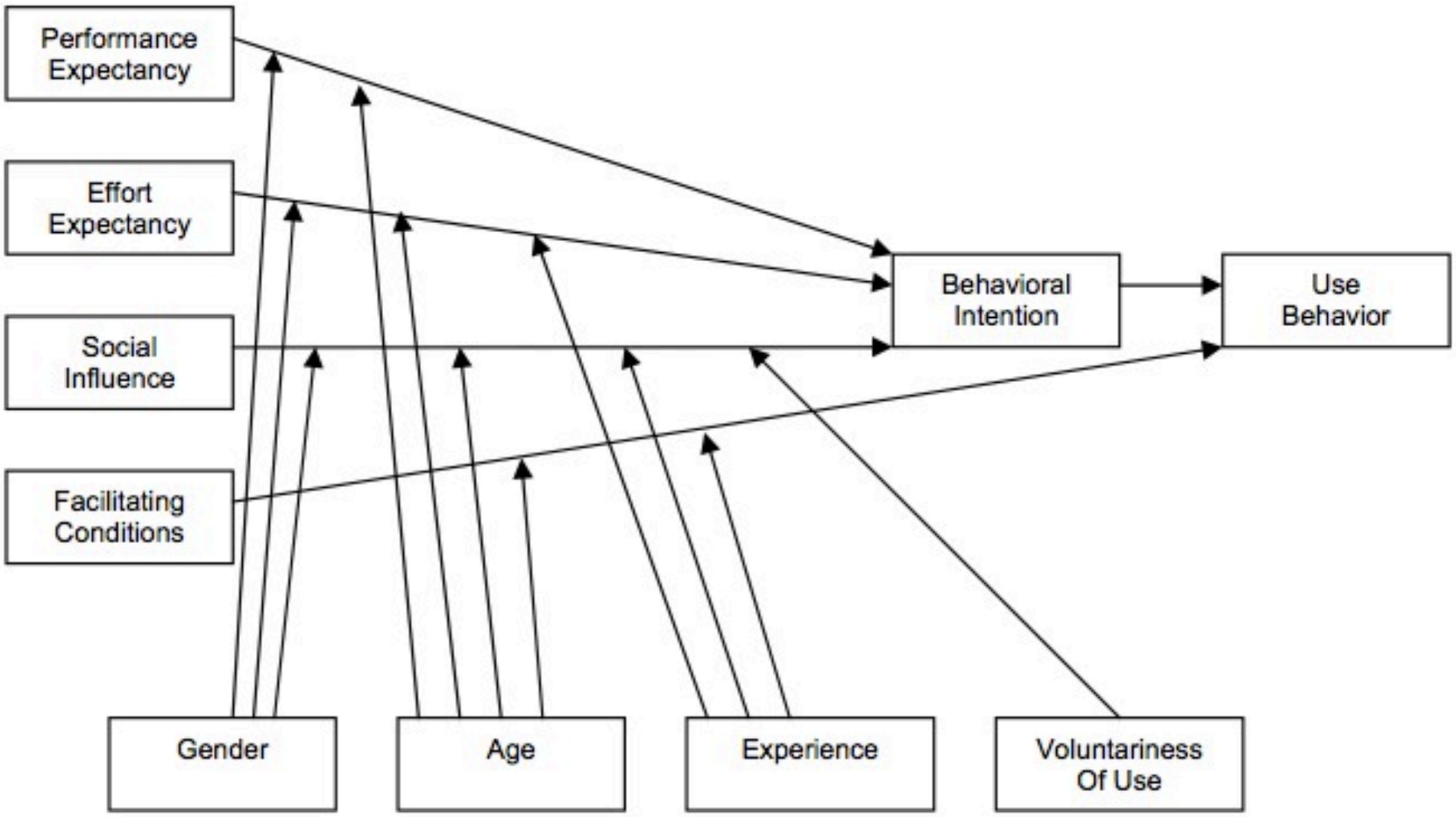
iPad Pilotstudie

- 3 (4) Forschungsfragen
  - Welche Faktoren beeinflussen Akzeptanz bei den Nutzern?
  - Wie verändern sich Lernpraktiken?
  - Wie nuzten die Lernenden die digitalen Lernmaterialien?
  - (Gibt es Auswirkungen auf Testergebnisse?)

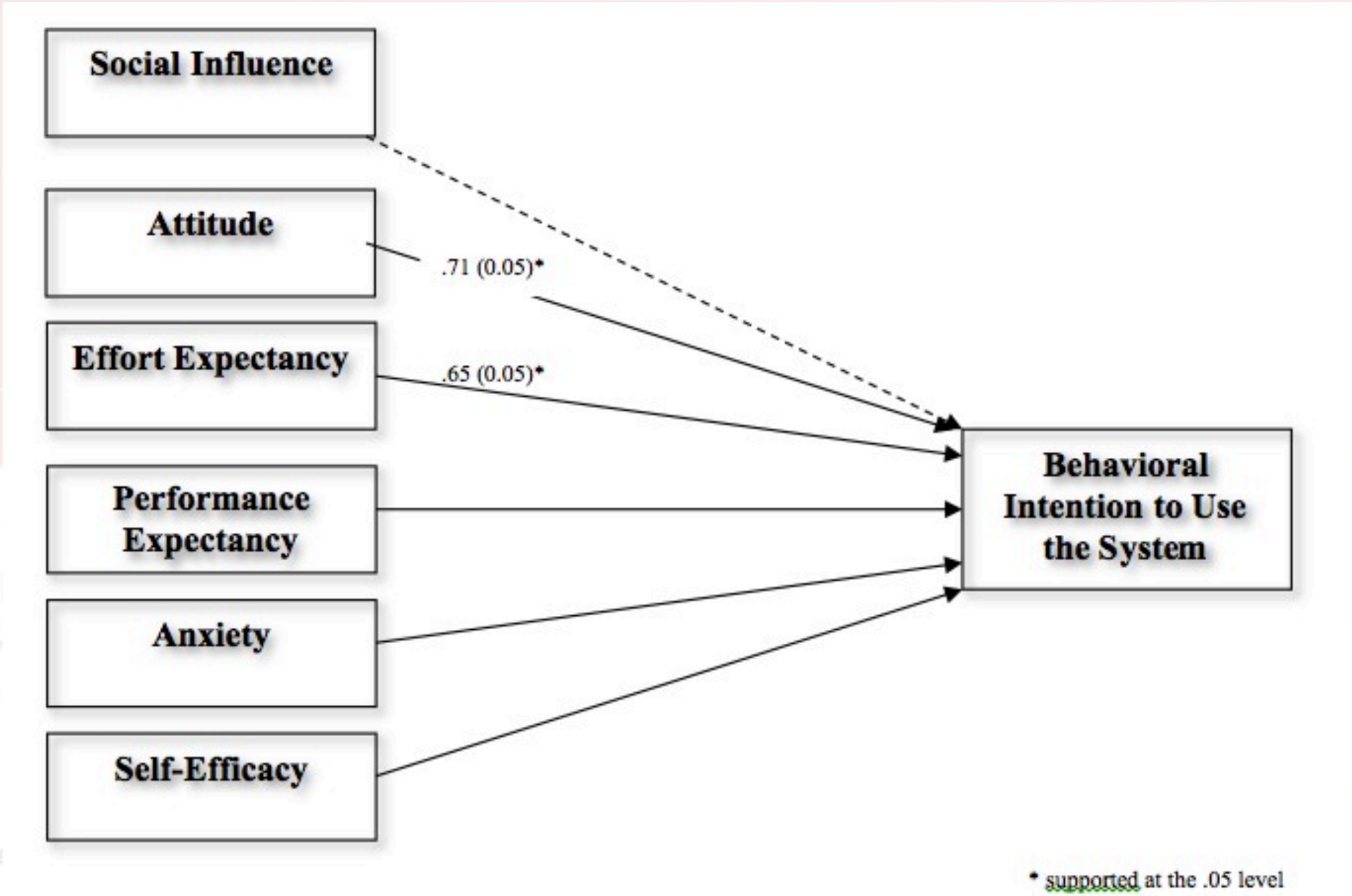
Technologieakzeptanzmodelle

- Teo (2011) definiert Technologieakzeptanz als “a user’s willingness to employ technology for the tasks it is designed to support”
- Verschiedene konkurrierende Modelle: Davis (1989): TAM, Venkatesh & Davis (2000): TAM2, Venkatesh & Bala (2008): TAM3
- Versuch der Integration aller Modelle in einer “Unified Theory of Acceptance and Use of Technology” (UTAUT) von Venkatesh et al. (2003): Modell konnte Varianz der Akzeptanz zu ca. 70% erklären (vorher ca. 40%)

UTAUT Model


Performance Expectancy
Effort Expectancy
Social Influence
Facilitating Conditions
Behavioral Intention
Use Behavior
Gender
Age
Experience
Voluntariness Of Use

Akzeptanzmodell Pilotstudie



Veränderte Lernpraktiken

- Entstehung neuer Lernkontexte durch tragbare Lernmaterialien
- Effektive Nutzung von kurzen Zeitslots
- Ortsunabhängiger Zugriff auf Lernmaterialien
- Kombination verschiedener Medien
- Auswirkungen auf Lernstrategien (Anmerkungen, Notizen, Selbsttest)
- Auswirkungen auf Seminarsituation

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Nutzung des Materials

- Anmerkungen sind kritisch
- Pop-up Selbtstest hilfreich
- Präferenz für ePubs
- Medienwechsel zu kompliziert
- Integrierte Video-Vorlesungen, ansonsten keinerlei Wünsche nach mehr Funktionalität

Auswirkungen auf Testergebnisse

- Keine sichtbaren Auswirkungen auf Testergebnisse (basierend auf einer statistisch wenig stabilen Grundlage)

ePub3 standard

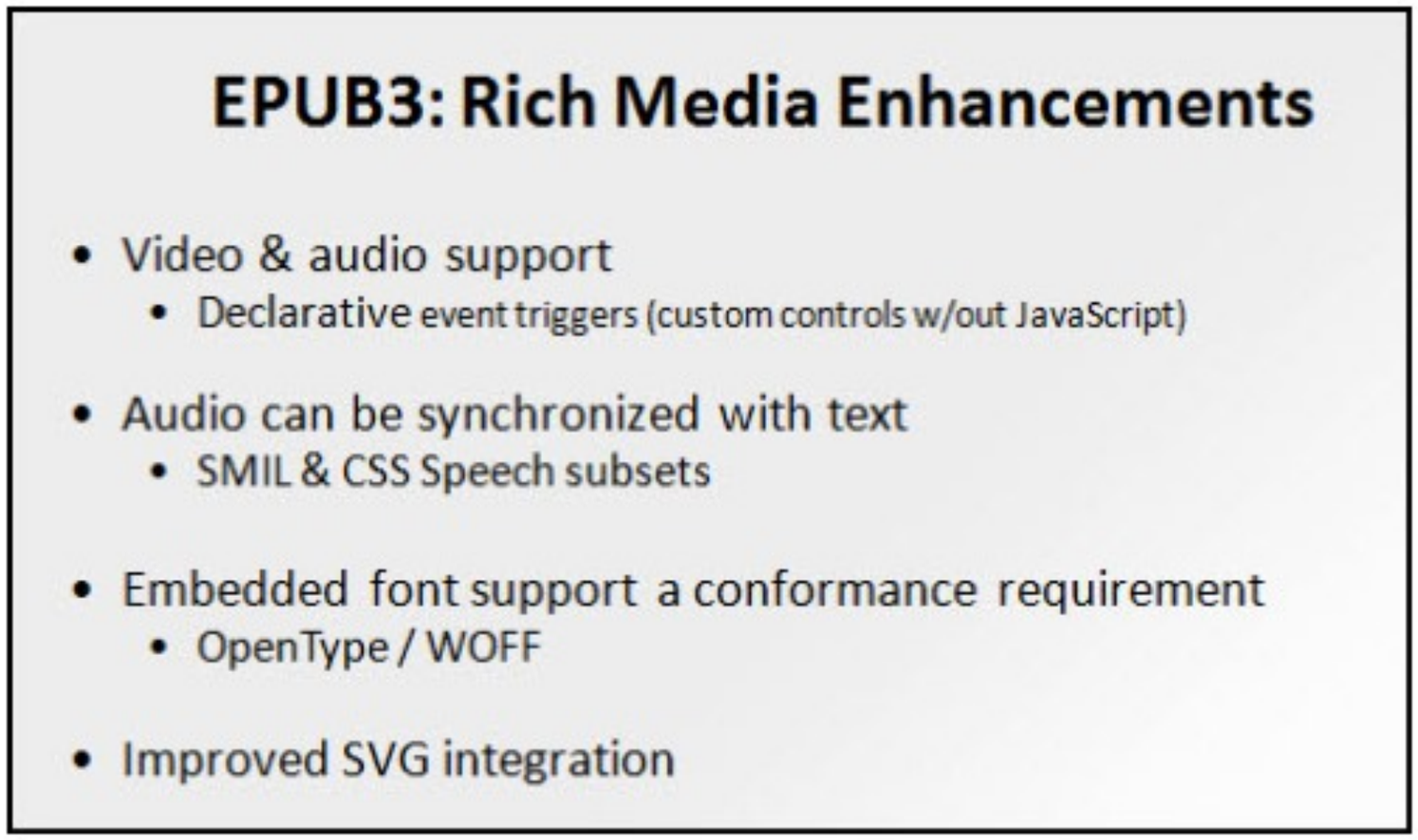
Area	EPUB 3 Specification	EPUB 2.0.1 Specification
Overview	EPUB 3 Overview	(throughout)
Publication-level Specification & Package Docs	EPUB Publications 3.0	Open Packaging Format 2.0.1
Content-level Specification	EPUB Content Documents 3.0	Open Publication Structure 2.0.1
EPUB Navigation Documents	EPUB Content Documents 3.0	N/A (NCX referenced as DAISY specification)
Media Overlays	EPUB Media Overlays 3.0	N/A
Container packaging	EPUB Open Container Format 3.0	Open Container Format 2.0.1
Changes from previous version	EPUB 3 Changes from EPUB 2.0.1	(throughout)

ePUB

ePub3

ePub3

- HTML5
- Media Overlays
- Scripting
- MathML
- Accessibility



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ePUB

The end of the book as we know it...

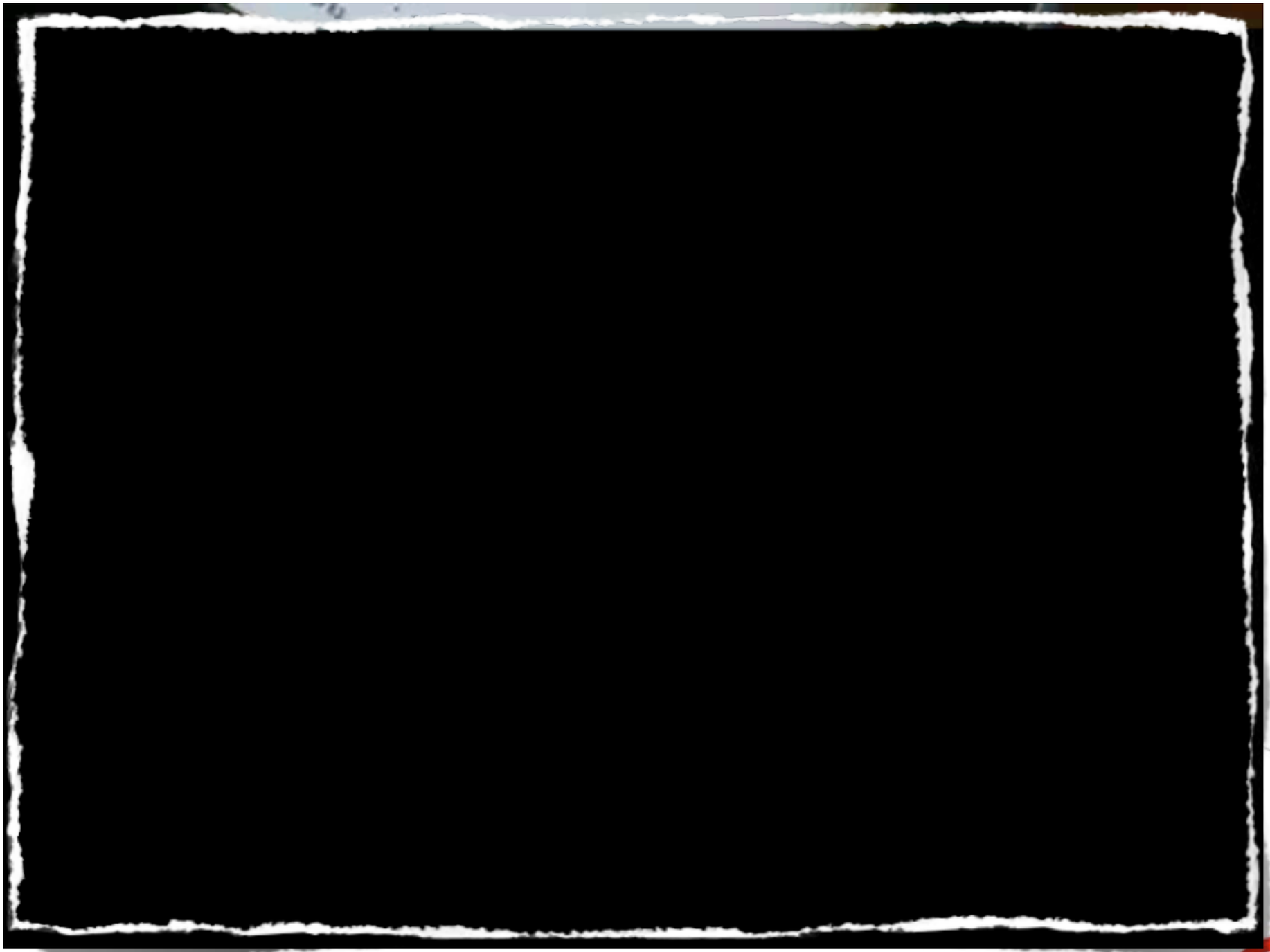
Matrix — a Taxonomy of Social Reading

CATEGORY 1 informal face-to-face discussion	Offline	Synchronous	Informal	Ephemeral
CATEGORY 2 informal online discussion	Online	Asynchronous	Informal	Persistent
CATEGORY 3 formal face-to-face discussion	Offline	Synchronous	Formal	Ephemeral
CATEGORY 4 formal discussion IN the margins	Online	Synchronous or Asynchronous	Formal	Persistent

appitude
The Joy of Social Reading
readsocial
24symbols
read&share

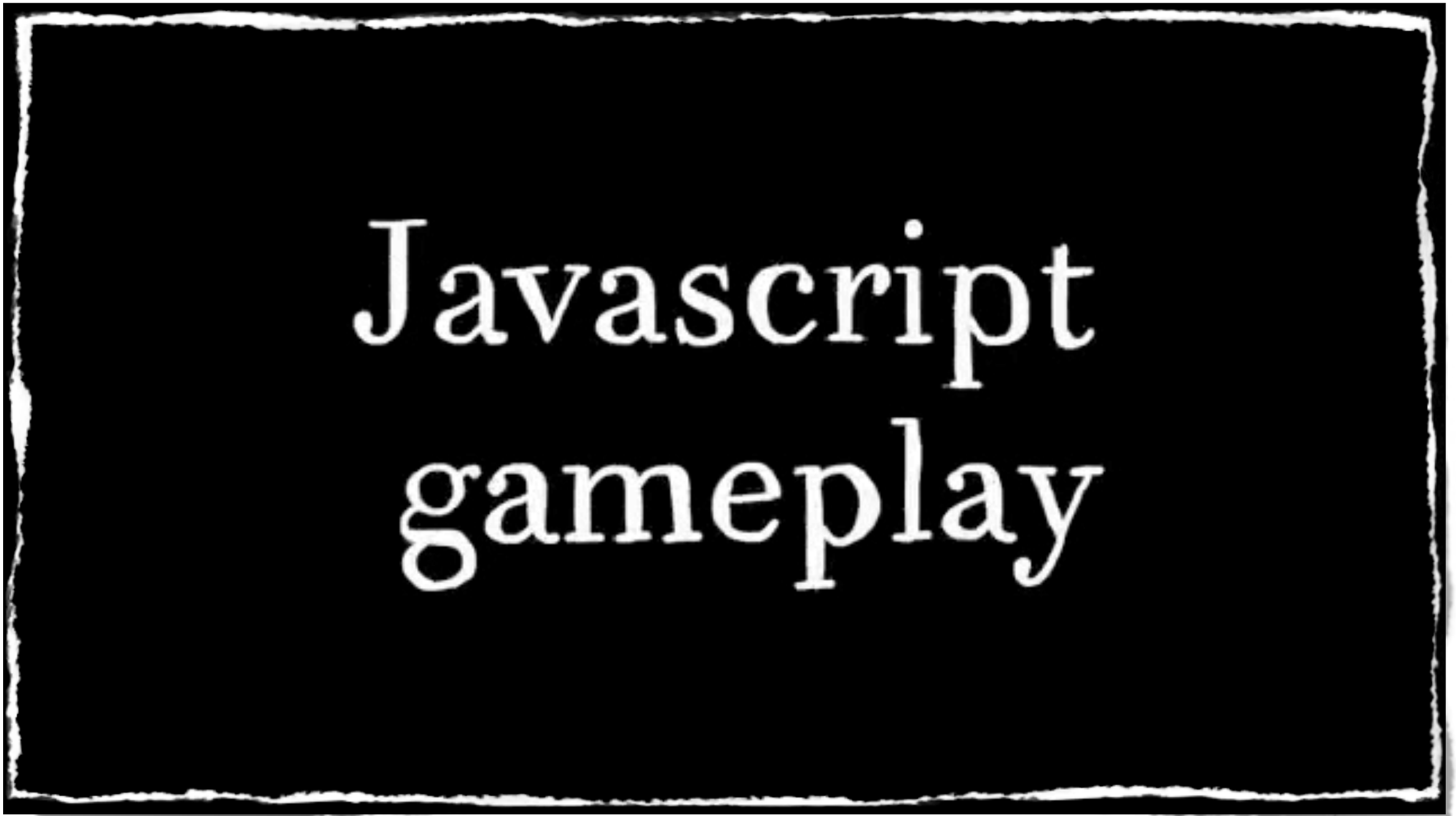
Stein, 2011

The end of the book as we know it...

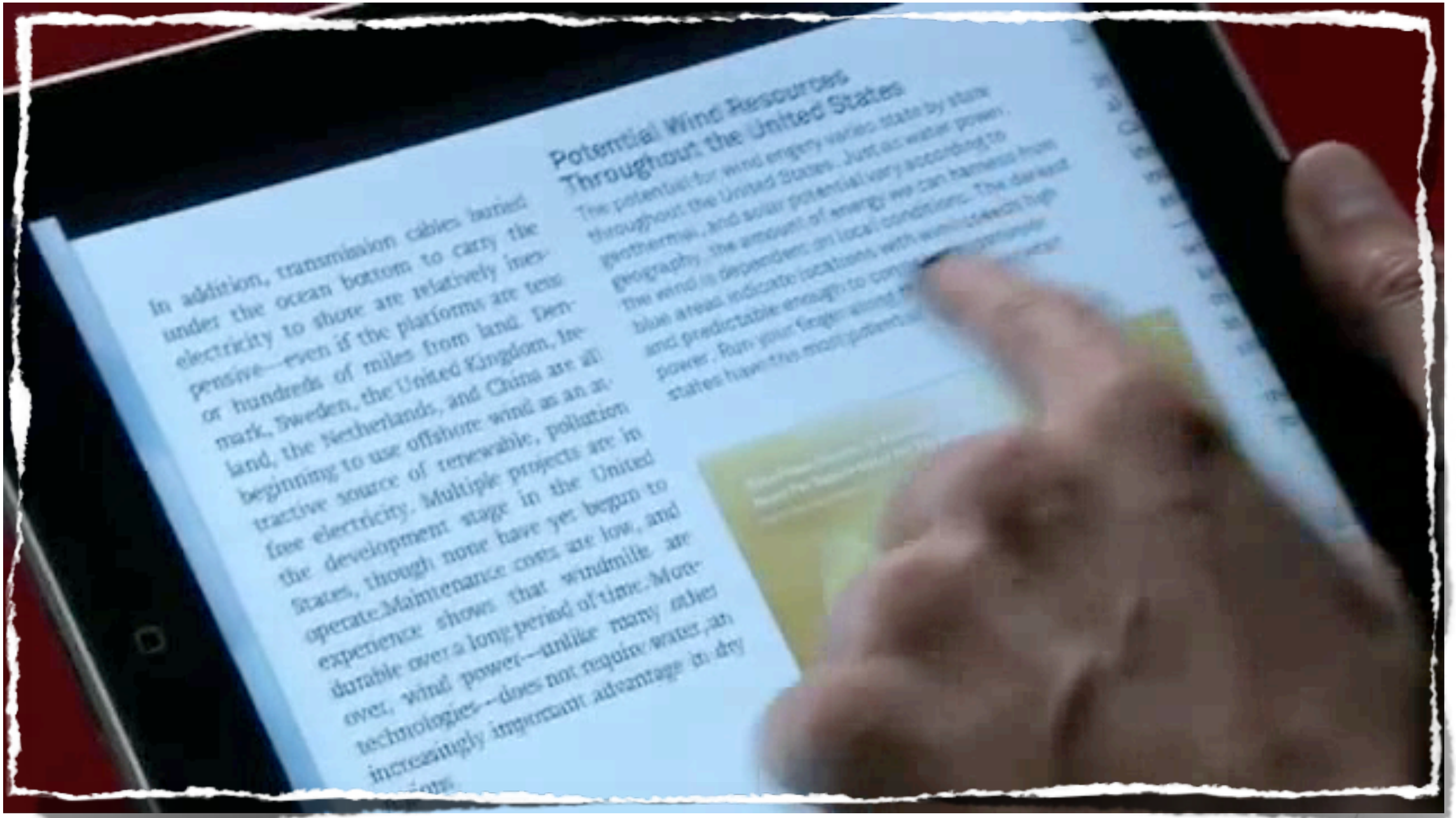


The end of the book as we know it...

The end of the book as we know it...



The end of the book as we know it...



Beyond content delivery

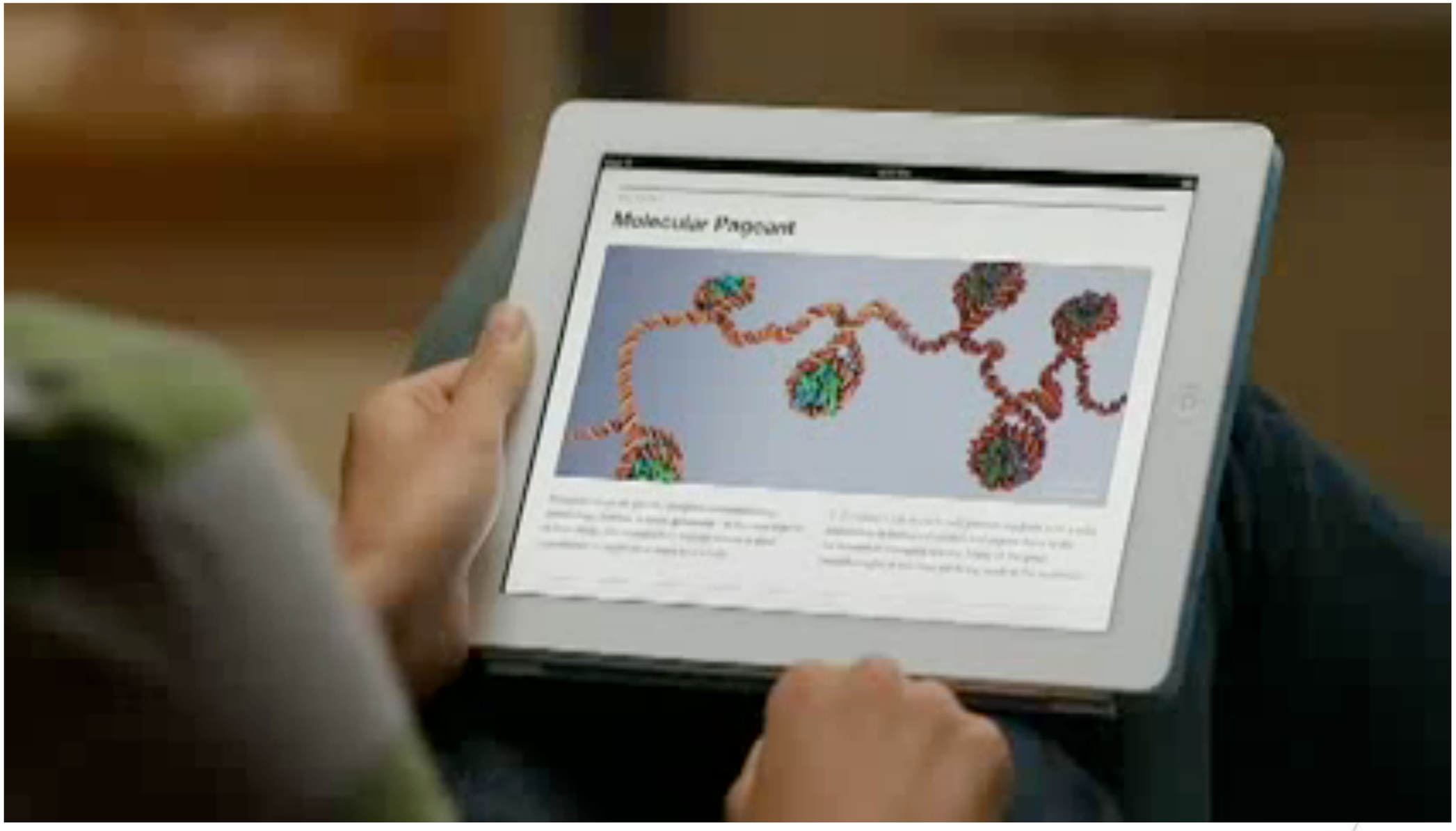
- Portability,
- Social Interactivity,
- Context Sensitivity,
- Connectivity,
- Individuality

Neue Autorenwerkzeuge

Neue Autorenwerkzeuge

Baker is a HTML5 ebook framework to publish interactive books & magazines on iPad & iPhone using simply open web standards.

Erweiterte eBooks



Ein Buch?

What widgets does iBooks Author come with?

The iBooks Author application comes with some pre-installed widgets, as well as the option to add custom widgets. The widgets which are available in iBooks Author are:

1. Gallery - a widget with a set of images which can be flicked through
2. Media - a widget which presents either video or audio in .m4v or .m4a format
3. Review - a widget which asks test questions and can provide instant results
4. Keynote - a widget that presents a Keynote presentation either in a box or Fullscreen
5. Interactive Image - a widget presenting image with labelled sections to zoom into
6. 3D - a widget which presents a 3D model which can be rotated and examined
7. HTML - a custom widget

Aktuelle Trends

Diversifizierung, Integration, Extension und Personalisierung

Dr. Marco Kalz forscht an der Open Universiteit (Niederlanden) zum E-Learning und identifiziert die vier Trends Diversifizierung, Integration, Extension und Personalisierung.

Aus meiner Sicht sind die Trends für die Entwicklung von neuen digitalen Lernmaterialien besonders durch die folgenden Schlagwörter geprägt: Diversifizierung, Integration, Erweiterung sowie Personalisierung. Im folgenden will ich kurz auf diese Aspekte eingehen:

Diversifizierung

Die Diversität von digitalen Lernmaterialien hat in den letzten Jahren nicht zuletzt durch die Bewegung der Open Educational Resources (OER) erheblich zugenommen. In den letzten Jahren haben besonders neue Formen von mobilen Lernapplikationen sowie elektronische Bücher zu dieser Erhöhung der Diversität beigetragen. Während einige Studien in den letzten Jahren klassische Medienvergleichsforschung betrieben haben, denke ich, dass Tablets durch ihre haptische und gestenbasierte Navigation einen neuen Qualitätslevel geschaffen haben. Die Kombination von motorischen und kognitiven Aktivitäten bietet noch nicht explorierte Effekte für effektives Lernen.

Haptik & Erweiterte Bücher

advancing children's learning in a digital age

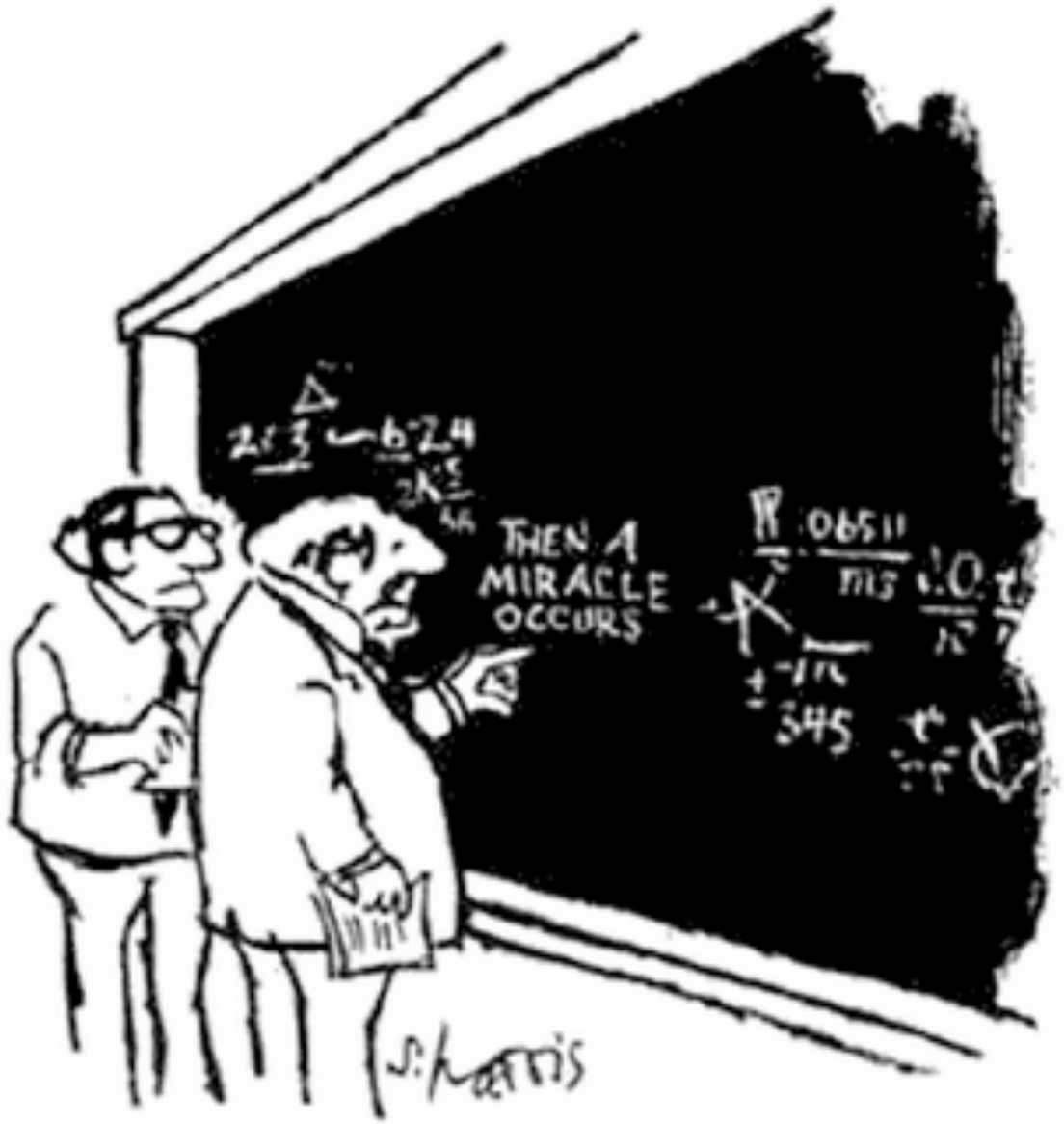
the Joan Ganz Cooney Center at Sesame Workshop

Data: The basic e-book elicited similar levels of *content related actions* (e.g., labeling, pointing, and verbal elaboration of story features) from the children and parents as its print counterpart, whereas the enhanced e-book drew out fewer content related actions than its print counterpart. Both types of e-books, but especially the enhanced e-book, prompted more *non-content related actions* (e.g., behavior or device focused talk, pushing hands away) from children and parents than the print books.

Behaviors

	Print vs. Basic E-book						Print vs. Enhanced E-book					
	Average number of times				Stat. Significance		Average number of times				Stat. Significance	
	Print A	**SD**	**Basic**	**SD**	**F**	**p-value**	**Print B**	**SD**	**Basic**	**SD**	**F**	**p-value**
Parent positive behavior	1.8	1.8	2.3	3.1	-	-	2.0	1.8	3.1	3.9	-	-
Child positive behavior	1.8	2.5	1.7	1.3	-	-	1.4	1.3	1.9	2.3	-	-
Parent negative behavior	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-
Child negative behavior	0.1	0.5	0.2	0.8	-	-	0.1	0.5	0.1	0.5	-	-
Parent distracted	0.8	1.1	1.5	1.8	-	-	1.3	2.0	0.9	1.5	-	-
Child distracted	4.1	2.4	2.3	1.9	5.3	0.029	3.3	2.9	3.7	2.3	-	-

http://portal.ou.nl/en/web/topic-mobile-learning



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

Thank you for your attention

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